Highlights

Overview

This issue of the *Natural Gas Monthly* contains estimates through April 1999 for many natural gas data series at the national level. Also, state-level data are now available through December 1998. The special report, "Natural Gas 1998: A Preliminary Summary" provides an analysis of these preliminary data for 1998. Final 1998 data will be published in EIA's *Natural Gas Annual 1998* in the fall of 1999.

Highlights of the most recent data contained in this issue are:

- Dry natural gas production in early 1999 is keeping pace with that of the past 2 years. Cumulatively through April 1999, estimated production is within 1 percent of levels for the same period in 1998 and 1997.
- The degree to which working gas in underground storage in 1999 exceeds that of 1998 has been reduced. Estimated levels at the end of March 1999 exceeded those of 1998 by 26 percent, but this was down to 14 percent by the end of April 1999.
- Cumulative end-use natural gas consumption through April 1999 is estimated to be 4 percent higher than for the same period in 1998.
- Average natural gas wellhead prices remain relatively low at an estimated $1.73 per thousand cubic feet in December 1998 and $1.80 in January 1999.

Supply

Cumulative dry natural gas production through April 1999 is within 1 percent of the levels in 1998 and 1997 for the same period (Figure HI1) and matches that of 1996. Production is being maintained thus far in 1999 despite the recent general decline in the national average wellhead price. During 1998, the highest monthly wellhead price was seen in April, at $2.22 per thousand cubic feet. By December 1998, the price had declined to $1.73 per thousand cubic feet and averaged $1.96 for the year. The estimated wellhead price for January 1999 is $1.80 per thousand cubic feet. Natural gas production in April 1999 is estimated to be 1,546 billion cubic feet, just one-half percent lower than in April 1998 (Table 1).

Net imports of natural gas are running higher than last year. Net imports in April 1999 are estimated to be 250 billion cubic feet, 6 percent higher than in April 1998 (Table 2). In each month, from January through April 1999, net imports have been from 6 to 8 percent higher than for the same month in 1998.

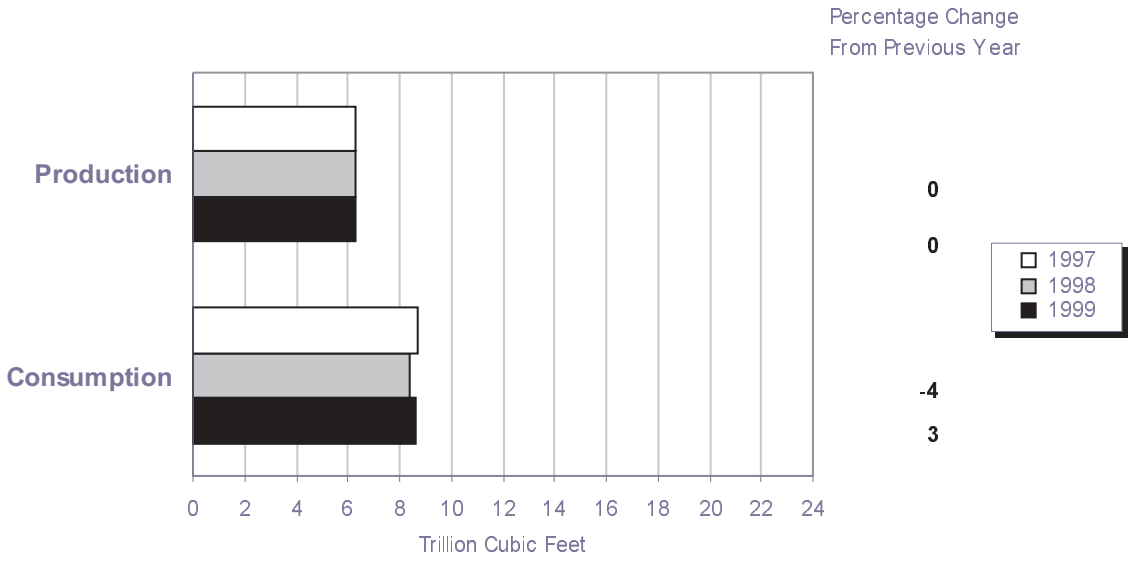
The natural gas industry began the 1999 storage refill season (April through October) with 26 percent more working gas in underground storage than last year.[1] However, net injections during April 1999 (shown as negative net withdrawals in Tables 9 and 10), at 80 billion cubic feet, were less than half that of April 1998. Thus working gas at the end of April 1999 is estimated to be 1,572 billion cubic feet, about 14 percent above the level of a year ago (Figure HI2).

End-Use Consumption

Cumulative end-use consumption of natural gas through April 1999 is estimated to be 4 percent higher than during the same period last year. Consumption in both the residential and commercial sectors is 7 percent higher than last year, while industrial consumption is 3 percent lower (Figure HI3). Data on natural gas consumption by electric utilities in 1999 are available only for January, but the estimated level of 179 billion cubic feet is 5 percent above that of January 1998 (Table 3).

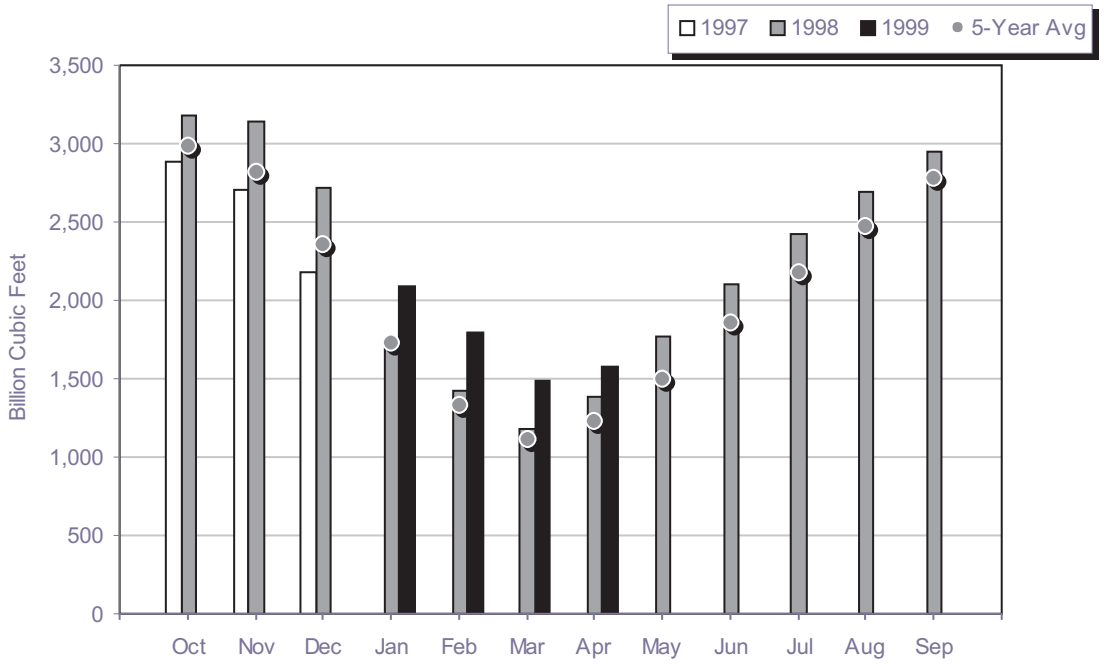
1 The Energy Information Administration reports storage levels as of the end of each month. Thus. Data for March 31 represent both the end of the heating season and the beginning of the nonheating or refill season. See table 10.

Figure HI1. Natural Gas Production and Consumption, January-April, 1997-1999



Source: Table 2.

Figure HI2. Working Gas in Underground Storage in the United States, 1997-1999



Note: The 5-year average is calculated using the latest available monthly data. For example, the December average is calculated from December storage levels for 1994 to 1998 while the January average is calculated from January levels for 1995 to 1999. Data are reported as of the end of the month, thus October data represent the beginning of the heating season.

Source: Form EIA-191, "Underground Natural Gas Storage Report," Form EIA-176, "Annual Report of Natural

Patterns of natural gas use during the early months of the year are strongly influenced by the weather because much of the gas used in the residential and commercial sectors is for space heating. The period January through March in both 1999 and 1998 was generally warmer than normal, as measured by heating degree days (Table 26), but the early months of 1999 were colder than in 1998, helping to boost natural gas consumption relative to last year. For April 1999, residential natural gas consumption is estimated to be 428 billion cubic feet, 5 percent above that of April 1998, while commercial consumption is 281 billion cubic feet, 9 percent above that of last year.

Natural gas use in the industrial sector is estimated be 702 billion cubic feet in April 1999, matching the level of April 1998. In each month from January through March, industrial consumption has been from 2 to 5 percent lower in 1999 than in 1998. The industrial sector continues to consume far more natural gas than the other sectors, accounting for 43 percent of total end-use consumption according to the estimates for April 1999.

Prices

The most recent natural gas price estimates are for January 1999. Supply and end-use prices are mixed relative to December 1998, but are lower than the levels in January 1998. Both the average wellhead and city gate prices in January 1999 are above their December 1998 levels. The average wellhead price estimate is $1.80 per thousand cubic feet, 4 percent higher than the prior month (Figure HI4 and Table 4) and the city gate price estimate is $2.88, 18 percent above the December 1998 level. These prices are 10 and 12 percent lower than a year ago, however.

The average prices paid for natural gas in the residential and commercial sectors[2] in January 1999 are estimated to be $6.18 and $5.12 per thousand cubic, respectively, 3 and 2 percent lower than in December 1998. The January 1999 prices are 4 and 8 percent lower, respectively, than those paid in January 1998. In the industrial sector, the estimated price paid for natural gas in January 1999 is $2.97 per thousand cubic feet, 5 percent above that of December 1998, but 19 percent below the $3.68 of a year ago. The industrial price in January 1997 had been even higher. At that time, the wellhead price had peaked at $3.40 per thousand cubic feet and the average industrial price was $4.65 per thousand cubic feet.

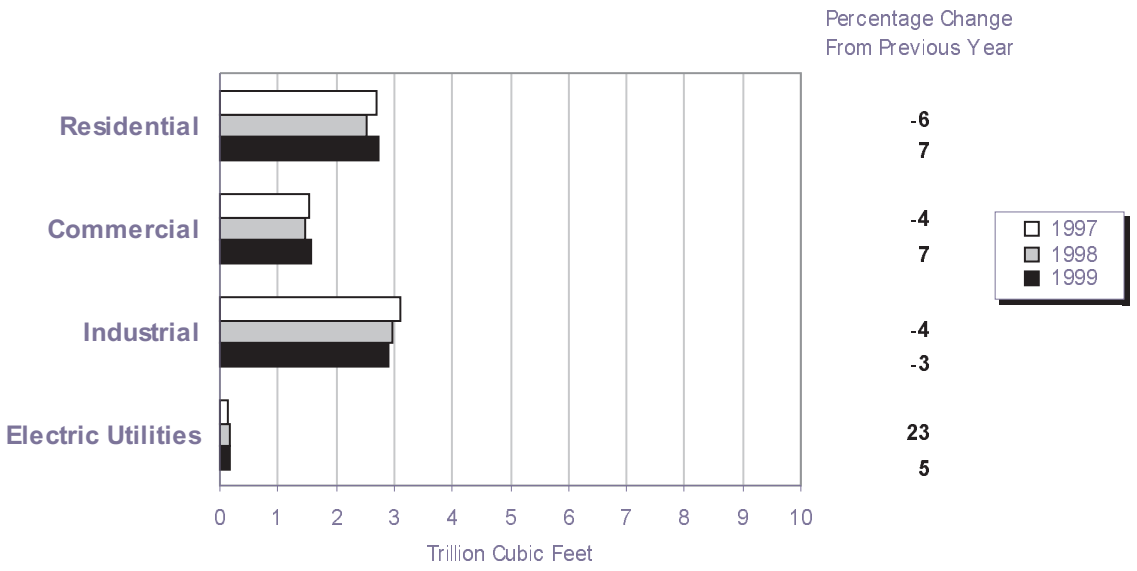
Data on the average prices paid by electric utilities lag data for the other sectors by 1 month and thus are available only through December 1998. The estimated price paid for natural gas by electric utilities in December 1998 was $2.22 per thousand feet and the estimated price for the year 1998 was $2.37. This is $0.37 per thousand cubic feet or 14 percent lower than the average price in 1997. Only the industrial sector saw a larger decline in prices from 1997 to 1998. In the industrial sector, the average price declined $0.52 per thousand cubic feet or 14 percent, reaching $3.07 in 1998.

Daily futures and spot prices are running higher in April 1999 than they did in March, the last month of the heating season. The nearby month futures price (for the May contract) settled above $2.00 per million Btu on March 31, 1999, and has remained above $2.00, closing at $2.348 per million Btu on April 28, 1999. The futures price has only settled above $2.00 one other day in 1999—January 4. The daily average spot prices at the Henry Hub have also been above $2.00 nearly every day since March 31, and averaged $2.31 per million Btu on April 28, 1999. Several factors have contributed to the price increase including some colder-than-normal temperatures during April, a partial recovery in crude oil prices (the West Texas Intermediate selling price was $18.50 per barrel on April 28, 1999, roughly $6.00 higher than prices in February), and the news that several nuclear plants in the Northeast may not be operating for extended periods this summer, potentially increasing the use of gas-fired electricity generation during periods of peak demand.[3]

2 End-use prices in the residential, commercial, and industrial sectors are for onsystem gas sales only. While monthly onsystem sales are nearly 100 percent of residential deliveries, in 1998 there were 64 percent of commercial deliveries and only 15 percent of industrial deliveries (Table 4).

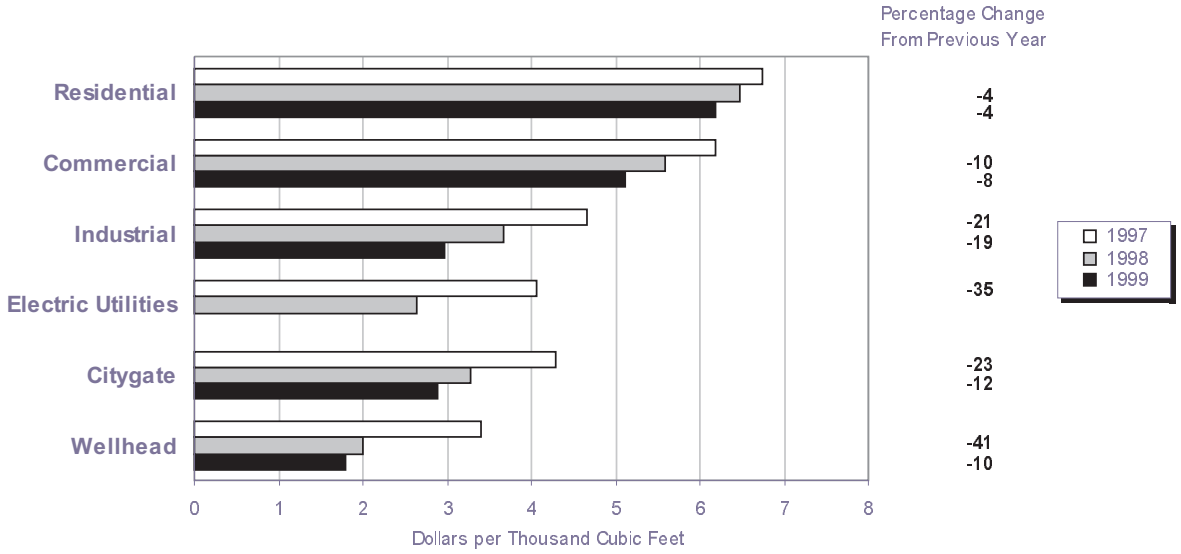
3 Energy Information Administration. *Natural Gas Weekly Market Update*, April 26, 1999. http / / www.eia.doe.gov.

Figure HI3. Natural Gas Delivered to Consumers, January-April, 1997-1999



Note: Electric utilities reflect January deliveries.
Source: Table 3.

Figure HI4. Average Delivered and Wellhead Natural Gas Prices, January, 1997-1999



Note: Commercial and industrial average prices reflect onsystem sales only. The reporting of electric utility prices is 1 month behind the reporting of other prices.
Source: Table 4.

Figure HI5. Daily Futures Settlement Prices at the Henry Hub

Note: The future price is for the nearby month contract, that is, for the next contract to terminate trading. Contracts are traded on the New York Mercantile Exchange. April 1is the beginning of the natural gas storage refill season. November 1 is the beginning of the heating season.

Source: Commodity Futures Trading Commission, Division of Economic Analysis.